UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,295	09/25/2003	John Jay Wolfgang	TUC920020117US1	9382

46917	7590	04/27/2006

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EXAMINER
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ART UNIT	PAPER NUMBER
2166	

DATE MAILED: 04/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	10/671,295	WOLFGANG ET AL.
	Examiner	Art Unit	
	Srirama Channavajjala	2166	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _25 September 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-39_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-39_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All   b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _9/25/03_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-39 are presented for examination.

Drawings

2.   The Drawings filed on 9/25/2003 are <u>acceptable</u> for examination purpose

Information Disclosure Statement

3.   The information disclosure statement filed on 9/25/2003 is in compliance with the

provisions of 37 CFR 1.97, and has been considered and a copy is enclosed with this

Office Action.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

4.   Claim 1-39 are rejected under 35 U.S.C. 101 because invention is directed

to non-statutory subject matter.

The invention as claimed in claim 14 and interpreted in light of the specification

particularly page 13-14 "article of manufacture defined as "computer readable media

spec page 13, line 8-15. However "article of manufacture" specifically suggests

"a transmission media, signals propagating through space.....[see spec lpage 13, line

15-20] , "signals propagating though space" being not a "article of manufacture", is not

tangible, and therefore, claim 14 is directed to non-statutory subject matter

As to claims 1,14, 27 is directed to method and system for data synchronization:

having steps "determining a first identifier for a portion of data at a first source;

determining a second identifier for ......comparing the first and second identifiers; and

when the first and second identifiers......data at the first source" which is a combination

of hardware and software or software per say, both system and method performing a

mathematical algorithm, formula, or calculation related to "data synchronization

[claims 1,27], and as such the claimed invention is subject to the test of State Street,

149 F.3d at 1373-74, 47 USPQ2d at 1601-02. Specifically State Street sets forth that

the claimed invention must produce a *"useful, concrete and tangible result."* The

Interim Guidelines for Examination of Patent Applications for Patent Subject

Matter Eligibility states in section IV C. 2 b. (2) (on page 21 in the PDF format):

> The tangible requirement does not necessarily mean that a claim must
> either be tied to a particular machine or apparatus or must operate to change
> articles or materials to a different state or thing. However, the tangible
> requirement does require that the claim must recite more than a § 101 judicial
> exception, in that the process claim must set forth a practical application of that §
> 101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72,
> 175 USPQ at 676-77 (invention ineligible because had "no substantial practical
> application.").

Claims 1,14,27 have the result of producing data synchronization, however the

claims do not specify that the result neither stored nor output is displayed to a user or

otherwise used in the real world , but *does not output useful, concrete and tangible.*

Thus the claimed result is not a "useful, concrete and tangible result." The court in

State Street noted that the claimed invention in Alappat constituted a practical

application of an abstract idea because it produced *a useful, concrete and tangible*

result the display of a smoothed heart beat to a system user. The Federal Circuit

further ruled that it is of little relevance whether a claim is directed to a machine or

process for the purpose of a § 101 analysis. AT&T, 172 F.3d at 1358, 50 USPQ2d at

1451 (see the Interim Guidelines for Examination of Patent Applications for Patent

Subject Matter Eligibility, Annex II).

The examiner reviewed the specification but was unable to find a practical real-

world use of the result (for example: claim 1, claim 14, and claim 27. furthermore,

claims 6,19,32 are merely "generating the first identifier....generating the second

identifier......"do not produce **output "useful, concrete and tangible"**, similarly claims

7,9,20,22,33,35; claims 8-10,21-23,34-36 are also do not produce output **"useful,**

concrete and tangible". If the applicant is able to find one and inserts it into the

claims provide the location the element[s] is found in the specification.

In the above analysis of claims 2-13,15-26,28-29, dependent claims 1,14,27 also

rejected on that basis.

See for further information: <http://www.uspto.gov/web/offices/pac/dapp/ogsheet.html>

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6.   ***Claims 1-2,6-15,19-28,32-39 are rejected under 35 U.S.C. 102(a) as being***

anticipated by   Huang et al. [hereafter Huang], US Patent No. 6493727, published

on Dec 10,2002.

7.   As to claim 1,14,27, Huang teaches a system which including 'data

synchronization' [col 1, line 16-18, fig 1], data synchronization corresponds to

Huang's fig 1;

'determining a first identifier for a portion of data at a first source' [col 5, line 35-

43], Huang specifically teaches first and second databases element 176a, and 176b

and also suggests sequence identifier X associated with message or data providing

information to both first and second database as detailed in col 5, line 35-43;

'determining a second identifier for a portion of corresponding data at a second

source' [col 9, line 40-47], Huang teaches second database and associated sequence

identifier as detailed in col 9, line 40-47;

'comparing the first and second identifiers' [col 9, line 53-57], Huang specifically

teaches first database with content "A" associated with sequence identifier fig 8,

element 403, and second database with content "A" associated with sequence identifier

as detailed in col 9, line 53-57 are compared ;

'when the first and second identifiers do not match, replacing the portion of

corresponding data at the second source with the portion of data at the first source'

[col 9, line 65-67, col 10, line 4-10], Huang specifically teaches when first database

content updated or altered, the result replaces in the second database, i.e. when the

original database changes are noted, data is first and second database are replaced

during synchronization as detailed in col 10, line 1-10.

8.   As to claim 2,15,28, Huang disclosed 'when the first and second identifiers do

match, determining that the portion of data at the first source and the portion of

corresponding data at the second source are identical [col 6, line 6-15, fig 3], Huang

specifically teaches first and second databases in the primary and secondary devices

are identical and they both include the same content "A" as detailed in col 6, line 10-12.

9.   As to claims 6,19,32, Huang disclosed 'generating the first identifier by

performing a first function on the portion of data at the first source' [col 5, line 49-50];

'generating the second identifier by performing the first function on the portion of

corresponding data at the second source' [col 5, line 49-62].

10.   As to claims 7,9, 20,22,33, 35, Huang disclosed 'wherein determining the first

identifier further comprising: generating a first value by performing a first function on the

portion of data at the first source' [col 6, line 8-14];

'generating a second value by performing a second function on the portion of

data at the first source' col 6, line 16-21];

'generating the first identifier by combining the first value and the second value'

[col 6, line 34-39].

11.   As to claims 8,21,34, Huang disclosed 'generating a third value by performing

the first function on the portion of corresponding data at the second source'

[col 10, line 11-13];

'generating a fourth value by performing the second function on the portion of

corresponding data at the second source' [col 10, line 18-24];

'generating the second identifier by combining the third value and the fourth

value' [col 10, line 25-34].

12.   As to claims 10,23,36, Huang disclosed 'generating a second value by

performing the first function on the portion of corresponding data at the second source'

[col 6, line 55-61];

'generating the second identifier by performing the second function on the

second value' [col 6, line 66-67, col 7, line 1-5].

13.   As to claims 11,24,37, Huang disclosed 'first identifier for the portion of data at

the first source is determined when the portion of data at the first source is updated'

[col 5, line 49-53]; 'the second identifier for the portion of corresponding data at the

second source is determined when the portion of corresponding data at the second

source is updated' [col 5, line 49-65].

14.   As to claims 12,25,38, Huang disclosed 'first identifier and the second identifier

are determined when a determination is made that it is time to synchronize data at the

first source and the second source' [col 7, line 31-39].

15.   As to claims 13,26,39, Huang disclosed 'first identifier and the second identifier

are determined periodically' [col 7, line 24-28].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16.   Claims 3-5, 16-18,29-31, are rejected under 35 U.S.C. 103(a) as being

unpatentable over Huang et al. [hereafter Huang], US Patent No. 6493727,

published on Dec 10,2002 as applied to claims 1,14,27 above, and further in view

of Salkewicz et al. [hereafter Salkewicz], US Patent No. 5970502 published on

Oct 19,1999.

17.   As to claim 3, 16,29, Huang teaches 'firs and second identifiers'

[col 9, line 42-43, line 65-66], Huang specifically teaches sequence identifiers for

example fig 8, element 403 uniquely identifies the database element 406a. It is

however, noted that Huang does not specifically teach, "hash keys". On the other hand,

Salkewicz disclosed 'has key' [see fig 9A-9C, col 10, line 1-6].

It would have been obvious to one of the ordinary skill in the art at the time of

Applicant's invention to incorporate the teachings of Salkewicz et al. into synchronizing

database in a primary device and a secondary device that are derived from a common

database of Huang et al. because both Huang and Salkewicz are directed to "database

synchronization", more specifically, Huang is directed to merging the first and second

database into a common database in the primary and secondary devices as detailed in

col 1, line 45-57], while Salkewicz is directed to "synchronizing multiple copies of a

database", more specifically synchronizing first database with a second database in

which the first database contains a plurality of database records [col 2, line 39-42], and

both are same field of "synchronizing the databases" endeavor.

one of the ordinary skill in the art at the time of

Applicant's invention to incorporate the teachings of Salkewicz et al. into synchronizing

database in a primary device and a secondary device that are derived from a common

database of Huang et al. because that would have allowed users of Huang to copy each

segment of the data records, and records contained in the segments are "released" for

modification" [Salkewicz: col 7, line 20-24], bringing the advantages of restricting access

to only a very small number of records for a short period of time [Salkewicz: col 7, line

24-28], further it is noted that segment size corresponds to hash bucket such that each

hash bucket contains several segments, thus bringing the overall advantages of

segments are synchronized, transmitted, sequentially between first and second

database so that bi-directional updating of two or more databases [Salkewicz: col 2,

line 44-50].

18.   As to claim 4, 17,30, Salkewicz disclosed 'generating the hash keys using a

single hash key function' [col 10, line 5-7].

19.   As to claim 5, 18,31, Salkewicz disclosed 'generating the hash keys using

multiple hash key functions' [col 10, line 17-20].

Conclusion

The prior art made of record

      a.   US Pub.No. .   6493727

      b.   US Pub.No. .   5970502

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Srirama Channavajjala whose telephone number is 571-272-4108. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:30 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam, Hosain, T, can be reached on (571) 272-3978. The fax phone numbers for the organization where the application or proceeding is assigned is 571-273-8300 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)

sc
Patent Examiner.
April 7, 2006   SRIRAMA CHANNAVAJJALA
                 PRIMARY EXAMINER